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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,945	01/16/2004	Jos Huybrechts	FA1105USNA	8234

23906 7590 12/15/2005

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
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WILMINGTON, DE 19805

EXAMINER

WU, IVES J

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/759,945	Applicant(s) HUYBRECHTS ET AL.	
	Examiner Ives Wu	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

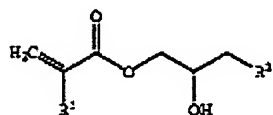
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international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

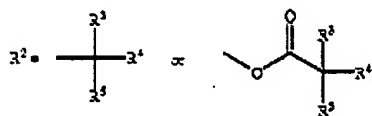
Claims 1-13 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stengel et al (US006458885B1).

Stengel et al (US006458885B1) disclose a fast drying clear coat composition containing (a). 25 to 80 wt% of an acrylic polyol. (b). 20 to 75 wt% of a curing agent reactive with hydroxyl groups, particularly polyisocyanates (Abstract, line 1-5,30-33).

The total weight of resin solid monomer mixture for synthesizing acrylic polyol comprising (a) 0.5 to 15 wt% of a compound of structure (I):



where $R^1 = H$ or CH_3 ,



R^3 is H or an alkyl group, R^4 is an alkyl group, and R^2 is an alkyl group containing at least four carbon atoms; and

(Col. 2, line 1-20)

(b) 0 to 45 wt% hydroxyl-containing unsaturated monomers such as hydroxyalkyl acrylates and methacrylates; (c) from 40 to 98 wt% of other ethylenically unsaturated copolymerizable materials such as nonfunctional alkyl acrylates, alkyl methacrylates, and vinyl aromatic monomers (Col. 2, line 56-65).

The monomers of group (b) are vinyl monomers such as hydroxyalkyl acrylates and methacrylates, including the acrylic acid and methacrylic acid esters of ethylene glycol and

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propylene glycol. Typically, these acrylates and methacrylates have 2 to 6 carbon atoms in the alkyl group. Also useful are hydroxyl-containing esters of unsaturated acids such as maleic acid, fumaric acid, itaconic acid and the like (Col. 3, line 58-67).

The monomers of group (c) include a wide range of unsaturated compounds. Preferably the major portion of the group (c) monomers are vinyl monomers, more specifically alkyl, cycloalkyl, or aryl acrylates and methacrylates having 2 to 6 carbon atoms in the esterifying group. Examples of particularly useful include 2-ethylhexyl methacrylate, isobornyl methacrylate, and cyclohexyl methacrylate. An aromatic vinyl monomer frequently included is styrene (Col. 4, line 1-11).

In addition to the film-forming components, other adjuvant resins such as polycaprolactone-type polyesters employed from the reaction of a cyclic lactone such as epsilon caprolactone with a hydroxyl acid (Col. 4, line 23-39).

In preferred embodiments of the compositions intended for automotive coatings are constituents to resist the affect of solar ultraviolet radiation. These include UV stabilizers, absorbers (Col. 5, line 8-11). When formulated as automotive refinish coatings, the compositions of the present application include organic liquid diluent (Col. 5, line 22-24). The film-forming compositions of the present invention are particularly adapted to be formulated into clear coating compositions. However, they could be formulated with pigments to form pigmented coating compositions (Col. 5, line 62-65).

Illustrated in the Example 1, the weight average molecular weight of acrylic polyol is 4498 (Col. 6, line 65). In Example 4, process for multilayer basecoat with clear topcoat is cited (Col. 8).

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As to the hydroxyl-functional (meth)acrylic copolymer having OH value from 160 to 200 mg KOH/g with Tg of at least 50 °C free of epoxy-functional free-radically copolymerizable olefinically unsaturated monomers in the **independent claim 1**, OH value from 170-190 mg KOH/g in **dependent claim 2**, OH values from 170-280 mg KOH/g and Tg from 60 to 100 °C in **dependent claim 4**, in view of substantially identical coating compositions disclosed by Stengel et al and by applicant, it is the examiner's position to believe that the coating composition of Stengel et al would inherently possess the OH values from 160-200, 170-190 or 170-280 mg KOH/g and Tg of at least 50 °C or 60-100 °C. Since USPTO does not have proper means to conduct the experiments, the burden now is shifted to the applicant's to prove otherwise. *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

As to the component (a) from 30–60 wt% in the **dependent claim 2**, Stengel et al disclose both the patentee's component (a) and (b) being at least one hydroxyl functional free-radically copolymerizable olefinically unsaturated monomer, the sum of them meets the range as claimed by applicant.

As to the component (b) from 15-40 wt%, component (c) from 10-40 wt% in the **dependent claim 2**, Stengel et al disclose the patentee's component (c) including styrene and cyclohexyl (meth)acrylate from 40 to 98 wt%, it would be reasonable to include the portions of vinyl aromatic to be in the range of 10-40 wt% and portion of cycloalkyl (meth)acrylate to be in the range 15-40 wt%.

As to the component (d) lactone to be in the range of 18-40 wt% in the **dependent claim 2**, Stengel et al disclose additional components of polycaprolactone-type polyesters formed by reaction of a epsilon-caprolactone with a polyol or hydroxyl acids. Stengel et al do not disclose

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the amount of this components in the patentee's coating composition, however, this additional component involves the hydroxyl acids and epsilon-caprolactone monomers which also are used as applicant's component (a) or (c) and applicant's component (d). It would be reasonable to include the range of 18-40 wt% of lactone when the additional resins formed by epsilon-caprolactone with a polyol or hydroxyl acid is used.

As to the total weight of components (a) – (d) to be 100 wt% in the **dependent claim 2**, the distributions of patentee's components (a), (b) and (c) with additional monomers would meet the limitation when the Stengel's component (b) is used as 5 wt% and balance of 40 wt% is used to reacted with epsilon-caprolactone so that the total of Stengel et al monomers (a), (b), (c) and lactone would be optimized to be 100 wt%.

As to the limitation of **dependent claim 9**, in view of substantially identical coating composition disclosed by Stengel et al and by applicant, it is reasonable to presume that the coating composition of Stengel et al would fulfill the same multilayer coating as presently claimed in light of its chemical similarities. The burden is shifted to applicant to establish that application of multilayer coating of the present claims is not the same as or obvious as that set forth by the Stengel et al.

Conclusion

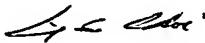
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Ives Wu
Art Unit: 1713
Date: December 3, 2005


LING-SUI CHOI
PRIMARY EXAMINER